AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1-23. (canceled)

24. (currently amended) A method for the prevention or treatment of Alzheimer's disease (AD) in a subject having or suspected of having AD, comprising administering to said subject a therapeutically effective amount of a ~~non-wildtype~~ non-wild type protofibril, wherein said non-wild type protofibril comprises the Aβ42-Arc peptide (SEQ ID NO:1).

25-26. (canceled)

27. (currently amended) A method for the prevention or treatment of Alzheimer's disease (AD) in a subject having or suspected of having AD, comprising administration to said subject a therapeutically effective antibody ~~or an active fragment thereof, against a non-wildtype protofibril~~ wherein said antibody is raised against a protofibril comprising an Aβ-Arc peptide.

28-31. (canceled)

32. (currently amended) The method according to claim 27, wherein said antibody ~~or fragment thereof~~ is monoclonal.

33. (currently amended) The method according to claim 27, wherein said antibody ~~or fragment thereof~~ is human or humanized.

34-38. (canceled)

39. (new) A method for the prevention or treatment of Alzheimer's disease (AD) in a subject having or suspected of having AD, comprising administering to said subject a therapeutically effective amount of a non-wild type protofibril, wherein said protofibril comprises the peptide selected from the group consisting of Aβ39-Arc (Amino Acids 1-39 of SEQ ID NO:1), Aβ40-Arc (Amino Acids 1-40 of SEQ ID NO:1), Aβ41-Arc (Amino Acids 1-41 of SEQ ID NO:1) and Aβ42-Arc (SEQ ID NO:1).

40. (new) The method according to claim 39, wherein said protofibril is in combination with a mutation selected from the group consisting of the (A692G), Flemish, and Iowa (D694N) mutations.

41. (new) A method for the prevention or treatment of Alzheimer's disease (AD) in a subject having or suspected of having AD, comprising administering to said subject a therapeutically effective amount of a non-wild type protofibril, wherein said protofibril comprises a mutated Aβ peptide comprising the mutation $Glu_{22} \rightarrow Gly_{22}$.

42. (new) The method according to claim 41, wherein said protofibril is in combination with a mutation selected from

the group consisting of the (A692G), Flemish, and Iowa (D694N) mutations.

43. (new) The method according to claim 27, wherein said Aβ-Arc peptide is selected from the group consisting of Aβ39-Arc (Amino Acids 1-39 of SEQ ID NO:1), Aβ40-Arc (Amino Acids 1-40 of SEQ ID NO:1), and Aβ42-Arc (SEQ ID NO:1)